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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,063

08/01/2006

Koji Abe

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22204

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05/21/2009

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EXAMINER

WEINER, LAURA S

ART UNIT

PAPER NUMBER

1795

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,063	Applicant(s) ABE, KOJI	
	Examiner /Laura S. Weiner/	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9-7-06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 2 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 9 are rejected because it is unclear if “wherein the two or more cyclic carbonate compounds” have to contain at least one from EC or PC or BC AND at least one from VC or dimethylvinylene carbonate or vinylethylene carbonate or fluoroethylene carbonate; or can have any at least two from EC or PC or BC or VC or dimethylvinylene carbonate or vinylethylene carbonate or fluoroethylene carbonate. This claim is unclear because of the use of “AND”.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Onuki (7,223,502).

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Onuki teaches in column 31, a battery comprising a positive electrode, a negative electrode and an electrolyte. Onuki teaches in column 49, Example 28, an electrolyte comprising 2 parts by weight of vinylene carbonate [*one cyclic carbonate*], 3 parts by weight of fluorobenzene [*2 wt% of a fluorobenzene compound*], 1 part by weight of cyclohexylbenzene [*1 wt% of a cyclohexylbenzene compound*] and 94 parts by weight of ethylene carbonate [*second cyclic carbonate*] and ethyl methyl carbonate in a volume ratio of 3:7). Onuki teaches in column 28, lines 39-50, that the overcharge inhibitor can be cyclohexylbenzene, etc. and partially fluorinated products of cyclohexylbenzene such as cyclohexylfluorobenzene [*cyclohexylbenzene compound having a halogenated benzene ring*], etc. Onuki teaches in column 32, that the battery was charged to 4.2V.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onuki (7,223,502).

Onuki teaches in column 31, a battery comprising a positive electrode, a negative electrode and an electrolyte. Onuki teaches in column 49, Example 28, an electrolyte comprising 2 parts by weight of vinylene carbonate [*one cyclic carbonate*], 3

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parts by weight of fluorobenzene [*2 wt% of a fluorobenzene compound*], 1 part by weight of cyclohexylbenzene [*1 wt% of a cyclohexylbenzene compound*] and 94 parts by weight of ethylene carbonate [*second cyclic carbonate*] and ethyl methyl carbonate in a volume ratio of 3:7). Onuki teaches in column 28, lines 39-50, that the overcharge inhibitor can be cyclohexylbenzene, etc. and partially fluorinated products of cyclohexylbenzene such as cyclohexylfluorobenzene [*cyclohexylbenzene compound having a halogenated benzene ring*], etc. Onuki teaches in column 32, that the battery was charged to 4.2V.

Onuki discloses the claimed invention except for specifically teaching that cyclohexylfluorobenzene was used in the Example instead of cyclohexylbenzene.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use cyclohexylfluorobenzene instead of cyclohexylbenzene as the overcharge inhibitor because Onuki teaches that both these overcharge inhibitors can be used in the electrolyte as explained above and one would expect therefore that these overcharge inhibitor materials would function in a similar way and give similar results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Laura S. Weiner/ whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura S Weiner/
Primary Examiner
Art Unit 1795

May 19, 2009